

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**Before the Board of Patent Appeals and Interferences**

Applicant : David Wesley Smith  
Serial No. : 10/077,372  
Filed : February 15, 2002  
For : SYSTEM AND METHOD FOR MONITORING COMPUTER  
APPLICATION AND RESOURCE UTILIZATION  
Examiner : Jennifer N. To  
Art Unit : 2195

**APPEAL BRIEF**

May It Please The Honorable Board:

Appellants appeal the Office Action dated February 21, 2007 of Claims 1-22 of the above-identified application. The fee of five hundred dollars (\$500.00) for filing this Brief and any associated extension fee is to be charged to Deposit Account No. 19-2179. Enclosed is a single copy of this Brief.

Please charge any additional fee or credit any overpayment to the above-identified Deposit Account.

Appellants do not request an oral hearing.

**I. REAL PARTY IN INTEREST**

The real party in interest of Application Serial No. 10/077,372 is the Assignee of record:

Siemens Medical Solutions Health Services Corporation  
51 Valley Stream Parkway  
Malvern, PA 19355-1406

which merged into Siemens Medical Solutions USA Inc. on 1 January 2007

**II. RELATED APPEALS AND INTERFERENCES**

There are currently, and have been, no related Appeals or Interferences regarding Application Serial No. 10/077,372.

**III. STATUS OF THE CLAIMS**

Claims 1 - 22 are rejected and the rejection of claims 1 - 22 are appealed.

**IV. STATUS OF AMENDMENTS**

All amendments were entered and are reflected in the claims included in Appendix I.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

Independent claim 1 provides in a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities, a method performed by a data processor for monitoring individual application utilization (page 3, line 34 - page 4, line 6). A first record of different users associated with an entity is maintained (page 10, lines 18-22; Fig. 5A, reference no. 503). A second record of different applications invoked by the at least one of the different users is maintained (page 10, lines 24-28; Fig. 5A, reference no. 505). A third record of use of an executable program employed by said different application invoked by the at least one of the different users is maintained (page 10, line 30 - page 11, line 6; Fig. 5A, reference no. 507). The record of use supports allocation of proportion of usage of the executable program by individual applications of the different applications. The first, second and third records are employed for intermittently compiling data identifying operation usage characteristics of individual applications of the different applications by the at least one of the different users associated with the entity in response to a predetermined processing operation event (page 11, lines 8-16; Fig. 5A, reference no. 509).

Dependent claim 2 includes the features of independent claim 1 along with the additional feature of allocating proportion of usage of the executable program between the different applications by determining an estimate of relative duration of use of the executable

program by individual applications of the different applications (page 7, lines 11-13; Fig. 4A, reference no. 415).

Dependent claim 3 includes the features of claims 1 and 2 along with the additional feature of determining and recording weighting factors associated with individual applications of the different applications. The weighting factors represent an estimate of relative duration of use of the executable program by individual applications of the different applications (page 7, lines 11-14; Fig. 4A, reference no. 415).

Dependent claim 4 includes the features of claim 1, along with the additional feature indicating that intermittently compiling data involves intermittently compiling data identifying at least one of, processor time used by an individual application, a number of file accesses made by an individual application and a number of storage access requests made by an individual application (page 4, lines 9-13).

Dependent claim 6 includes the features of claim 1, along with the additional feature that the predetermined processing operation event includes at least one of, a data access request, a storage access request, termination of use of an individual application, termination of user operation session and a periodically generated command (page 11, lines 13-16).

Dependent claim 8 includes the features of claim 1 along with the additional feature that the second and third records include data elements and the data elements of the second and third records are dynamically created during a session of operation (page 10, lines 18-22; Fig. 5A, reference no. 503).

Independent claim 11 provides in a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities, a method performed by a data processor for monitoring individual application utilization (page 3, line 34 - page 4, line 6). During a session of user operation, a first record of different users associated with an entity is maintained (page 10, lines 18-22; Fig. 5A, reference no. 503); a second record of different applications invoked by at least one of the different users is maintained (page 10, lines 24-28; Fig. 5A, reference no. 505); and a third record associating a processing device with the at least one of the different users is maintained (page 10, line 30 - page 11, line 6; Fig. 5A, reference no. 507). Also during a session of user operation, the first, second and third records are employed for intermittently compiling data identifying at least one of, a processor time used by an individual application (page 12, lines 7 - 8; Fig. 6C), a number of file accesses made by an individual application (page 12, lines 8-10; Fig. 6C) and a number of storage access requests made by an individual application of the different

applications by the at least one of the different users associated with the entity in response to a predetermined processing operation event (page 12, lines 10-11; Fig. 6C).

Claim 13 includes all the features of claim 1 along with the additional feature of allocating proportion of usage of the executable program by individual applications of the plurality of different applications by determining an estimate of relative duration of use of the executable program by individual applications of the different applications (page 7, lines 11-13; Fig. 4A, reference no. 415).

Independent claim 17 provides in a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities, a method performed by a data processor for monitoring application utilization (page 3, line 34 - page 4, line 6). A first record of different users associated with an entity is maintained (page 10, lines 18-22; Fig. 5A, reference no. 503). A second record of different applications invoked by at least one of the different users is maintained (page 10, lines 24-28; Fig. 5A, reference no. 505). A third record associating a processing device with the at least one of the different users is maintained (page 10, line 30 - page 11, line 6; Fig. 5A, reference no. 507). The first, second and third records are employed for intermittently compiling data identifying at least one of, processor time used by an individual application (page 12, lines 7 - 8; Fig. 6C), a number of file accesses made by an individual application (page 12, lines 8-10; Fig. 6C) and a number of storage access requests made by an individual application of the different applications by particular users associated with the entity in response to a predetermined processing operation event (page 12, lines 10-11; Fig. 6C). A record based on the compiled data is generated.

Independent claim 19 provides in a user interface system for monitoring individual application utilization of a plurality of currently operating applications shared by multiple users associated with one or more entities, a method performed by a data processor (page 3, line 34 - page 4, line 6). Display of a first image including a user selectable item is initiated for selecting display of image data representing processor utilization collated by individual application for a plurality of concurrently operating applications (page 4, lines 6-8). In response to user selection of the item, display is initiated of a second image including compiled data identifying at least one of processor time used by an individual application, a number of file accesses made by an individual application and a number of storage access requests made by an individual application of the plurality of concurrently operating applications (page 4, lines 9-13).

Independent claim 21 provides a system for monitoring individual application utilization of a plurality of concurrently operating applications shared by multiple users associated with one or more entities (page 3, line 34 - page 4, line 6). A record processor is included for maintaining a first record of different users associated with an entity (page 10, lines 18-22; Fig. 5A, reference no. 503); for maintaining a second record of different applications invoked by at least one of the different users (page 10, lines 24-28; Fig. 5A, reference no. 505); and for maintaining a third record of use of an executable program employed by the different applications invoked by the at least one of the different users (page 10, line 30 - page 11, line 6; Fig. 5A, reference no. 507). The record of use supports allocation of proportion of usage of the executable program by individual applications of the different applications. A data compiler employs the first, second and third records for intermittently compiling data identifying operation usage characteristics of individual applications of the different applications by the at least one of the different users associated with the entity in response to a predetermined processing operation event (page 12, lines 10-11; Fig. 6C).

Independent claim 22 provides a system for monitoring individual application utilization of a plurality of concurrently operating applications shared by multiple users associated with one or more entities (page 3, line 34 - page 4, line 6). A record processor is included for maintaining a first record of different users associated with an entity (page 10, lines 18-22; Fig. 5A, reference no. 503); for maintaining a second record of different applications invoked by at least one of the different users (page 10, lines 24-28; Fig. 5A, reference no. 505); and for maintaining a third record associating a processing device with the at least one of the different users (page 10, line 30 - page 11, line 6; Fig. 5A, reference no. 507). A data compiler employs the first, second and third records for intermittently compiling data identifying at least one of processor time used by an individual application (page 12, lines 7 - 8; Fig. 6C), a number of file accesses made by an individual application (page 12, lines 8-10; Fig. 6C) and a number of storage access requests made by an individual application of the different applications by the at least one of the different users associated with the entity in response to a predetermined processing operation event (page 12, lines 10-11; Fig. 6C).

#### **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-3, 7-9 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Fleming, III (U.S. Patent No. 6,230,204).

Claims 4-6, 10-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fleming (U.S. Pat. No. 6,230,204) in view of AIX Version 3.2 ("AIX Version 3.2 -

System Management Guide: Operating System and Devices, Chapter 14 System Accounting", published October 1<sup>st</sup> 1993).

## **VII. ARGUMENT**

Fleming does not anticipate claims 1-3, 7-9 and 21 of the present claimed invention. Fleming in view of AIX Version 3.2 also does not make claims 4-6, 10-18 and 22 of the present claimed invention unpatentable. Thus, reversal of the Final Rejection (hereinafter termed "rejection") of claims 1-3, 7-9 and 21 under 35 U.S.C. § 102(e) and claims 4-6, 10-18 and 22 under section 35 U.S.C. § 103 (a) is respectfully requested.

### **Overview of the Cited References**

Fleming describes a system for estimating the total usage of computer system resources by all users with access to those resources, performed in such a way that desired demographic information is available and computer users are not deterred from using the resource by the usage estimation techniques. The system selects a computer system resource of interest, receives demographic information on various computer users with access to the resource, uses the demographic information to select some of the computer users to be a representative sample of all computer users with access to the resource, loads a copy of a monitoring program onto each of the computer systems used by the selected users, executes the loaded copies of the monitoring program so that usage of various computer system resources by the selected users is recorded, transfers the recorded information to a central analyzing facility, estimates the total usage of the computer system resource of interest by all the users based on the usage of the representative sample users, and rates the resource relative to other resources based on a resource characteristic that depends on the amount of usage. In one embodiment, the computer system resource of interest is a computer document or a computer website on the World Wide Web, and the document or website includes advertising information that is displayed when the resource is accessed and used. In this embodiment, the document or website is rated on the basis of its ability to attract computer users with demographic information of interest (see Abstract).

AIX Version 3.2, Chapter 14 describes an accounting system utility which allows you to collect and report on individual and group use of various system resources.

### **Rejection of Claims 1-3, 7-9 and 21 under 35 U.S.C. 102(b) Fleming (U.S. Patent 6,230,204)**

Reversal of the rejection of claims 1-3, 7-9 and 21 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,230,204 issued to Fleming is respectfully requested because the

rejection makes crucial errors in interpreting the cited reference. The rejection erroneously states that claims 1-3, 7-9 and 21 are anticipated by Fleming.

#### CLAIMS 1, 7 and 9

Claim 1 provides in a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities, a method performed by a data processor for monitoring individual application utilization. A first record of different users associated with an entity is maintained. A second record of different applications invoked by the at least one of the different users is maintained. A third record of use of an executable program employed by said different application invoked by the at least one of the different users is maintained. The record of use supports allocation of proportion of usage of the executable program by individual applications of the different applications. The first, second and third records are employed for intermittently compiling data identifying operation usage characteristics of individual applications of the different applications by the at least one of the different users associated with the entity in response to a predetermined processing operation event. These features are not shown or suggested by Fleming.

Fleming estimates "the total usage of computer system resources by all users with access to those resources, performed in such a way that desired demographic information is obtained and the usage estimation techniques do not deter computer users from using the resource" (Col. 2, lines 50-55). Thus, Fleming merely describes estimating the total computer system resource usage by all the users that have access to the relevant resources. Fleming may deal with several users that have access to resources; however, Fleming neither discloses nor suggests "monitoring individual application utilization" as recited in claim 1 of the present invention. The Office Action cites Fig. 9 and Col. 11, lines 30-50 of Fleming as being equivalent to the present claimed invention. Applicant respectfully disagrees. The above cited passage and figure merely describes "examples of computer users along with their demographic information, and the selection of a sample group of those computer users ... Users 910 is a list of multiple computer users" (Col. 11, lines 30-34). As can be seen in Fig. 9 of Fleming, "Users 910" list sorts according to **users** (for example, "USER 1, USER 2" etc.). However, there is no 112 compliant enabling disclosure in Fleming of "monitoring **individual application** utilization" as recited in claim 1 of the present invention. Fleming merely sorts demographic information according to the different **users**. This is wholly unlike "monitoring individual application utilization" as recited in the present claimed invention.

Additionally, the Office Action on page 3 cites Fig. 9-10 and Col. 12, lines 51-55 as being relevant to the present claimed invention. Applicant respectfully disagrees. As described in the above, Fig. 9 sorts demographic information by **users**. Similarly, Fig. 10

shows "Total Resource Usage by All Users with Access" sorted by individual users. Total usage is also shown to be calculated. However, merely calculating usage by users (i.e., User 1, User 2, etc.) is not the same as "monitoring individual application utilization" as recited in the present claimed invention. Furthermore, the cited passage of Fleming describes that the "Program 1040 is an executable software program entitled 'Dune Buggy Racer,' and usage information 1050 and user list 1060 correspond to program 1040. These indicate that program 1040 was accessed by user 3 who executed the program on 8/17 from 9:30-10:45 AM" (Col. 12, lines 51-55). Thus, Fleming describes listing usage information for users that play a software program called "Dune Buggy Racer." This is wholly unlike the present claimed invention in which "a third record of use of an executable program employed by" the different applications is maintained, where the "record of use ... [supports] allocation of **proportion** of usage of said executable program by individual applications of said different applications." Furthermore, Fleming, in Fig. 9 and 10 may display "Usage Information" or "Total Resource Usage by All Users with Access" for a program or a document; however, the usage is a measurement of time (more specifically, the time is measured in minutes). This measurement of usage (or elsewhere) in Fleming does not disclose or suggest that the record of use supports allocation of **proportion** of usage of the executable program by individual applications of the different applications, as in the present claimed invention. Fleming is contrary to the present claimed invention which specifically recites that the "Application Program List 413 includes a program weight factor for each program being tracked. The use of weight factors supports allocation of proportionate usage of the different programs among the different applications of the system being monitored (Specification, page 10, line 33 – page 11, line ).\_ Fleming may track the number of actual and extrapolated minutes a user spends viewing a program or a document (and sort by user), however, Fleming provides no suggestion or disclosure of "supporting allocation of **proportion** of usage of said executable program ..." as recited in the present claimed invention. Therefore, Fleming contains no U.S.C. 112 compliant enabling disclosure of "monitoring individual application utilization" and the "record of use supporting allocation of proportion of usage of said **executable program** by **individual** applications" of **multiple** "different applications" as recited in claim 1 of the present invention.

Furthermore, "[o]ne advantage of the present invention is the ability to track and associate a given program with a given computer application being invoked in a computer system. An application may be, for example, executable software code in hardwired logic or resident in volatile storage including one or more programs or procedures ... For example, a user may start a patient management application by invoking a patient inquiry screen ... Once a patient management application ... is invoked, various programs associated with the particular application may be called to implement the user request 303" (Specification, page



5, lines 12-22). Additionally, "once a user invokes an application 303, various programs 306-310 associated with the invoked application 303 may be called by the application 303, as needed. As these programs 306-310 are invoked, their use and association to a particular application are tracked by APEX, as shown in Fig. 3" (Specification, page 5, lines 29-32). To the contrary, Fleming describes "a method and system for estimating total usage of computer system resources by users with access to those resources, with estimation performed in such a way that desired demographic information about the users is available .... In particular, a Resource Usage Rater (RUR) system first identifies a computer system resource of interest, such as a computer document accessible via the World Wide Web (WWW), and receives demographic information on various computer users with access to the resource. The RUR system uses the demographic information to select a group of computer users to be a representative sample of all computer users with access to the computer resource. The RUR system then initiates monitoring of the sample users' resource usage activities by loading a copy of a monitoring program onto the computer systems used by the sample users ... The executing monitoring programs record usage of resources by the sample users" (Col. 3, lines 44-64). Thus, Fleming samples users to gather information on a demographic group to represent all computer users with access to a particular computer resource. However, Fleming is wholly unlike the present claimed invention which recites "monitoring individual application utilization." Fleming merely deals with a group of sampled users and is not at all concerned with monitoring individual application utilization, as in the present claimed invention. Consequently, withdrawal of the rejection of claim 1 under 35 U.S.C. 102(b) is respectfully requested.

Dependent claims 7 and 9 are considered to be patentable based on their dependence on independent claim 1. Therefore, the arguments presented above with respect to claim 1 also apply to claims 7 and 9. Thus, Withdrawal of the rejection of claims 7 and 9 under 35 U.S.C. 103(a) is further respectfully requested.

#### CLAIM 2

Dependent claim 2 is considered to be patentable based on its dependence on claim 1. Therefore, the arguments presented above with respect to claim 1 also apply to claim 2. Claim 2 is also considered to be patentable because Fleming neither discloses nor suggests "allocating proportion of usage of said executable program between said different applications by determining an estimate of relative duration of use of said executable program by individual applications of said different applications" as recited in claim 2 of the present invention.

Col. 13, lines 4-29 of Fleming, cited by the Office Action on page 3, merely describes an estimation "of the **total usage of document 1010** for all users represented by each of the sample users" (Col. 13, lines 5-7). However, merely describing the estimation of total usage of a particular document based on sample users does not disclose or suggest the features of the present claimed invention. Additionally, as described in the above with respect to claim 1, Fleming does not at all mention or suggest allocating **proportion** of usage, as in the present claimed invention. More specifically, Fleming provides no U.S.C. 112 compliant enabling disclosure of "determining an estimate of relative duration of use of said executable program by individual applications of said different applications" as recited in claim 2 of the present invention. Consequently, it is respectfully requested that the rejection of claim 2 under 35 U.S.C. 102(b) be withdrawn.

### CLAIM 3

Dependent claim 3 is considered to be patentable based on its dependence on claim 1. Therefore, the arguments presented above with respect to claim 1 also apply to claim 3. Claim 3 is also considered to be patentable because Fleming neither discloses nor suggests "determining and recording weighting factors associated with individual relative duration of use of said executable program by individual applications of said different applications" as recited in claim 3 of the present invention.

Col. 3, lines 1-4 and Col. 13, lines 29-48 of Fleming, cited by the Office Action on page 3, neither disclose nor suggest the features of the present claimed invention. Specifically, Fleming describes using "the recorded usage information from the sample users and their demographic information to estimate the total usage of the resource by all users with access to it" (Col. 3, lines 1-3). Additionally, Fleming describes estimating other extrapolated values based on samples of users in the Col. 13 cited passage. However, Fleming does not estimate relative duration of usage of the executable program by individual applications of the different applications as in the present claimed invention. Merely estimating usage of a sample of users for a document is not the same as the "weight factors representing an estimate of relative duration of use of said executable program by individual applications of said different applications" as recited in claim 3 of the present invention. Therefore, as there is no mention or suggestion of "allocating proportion of usage of said executable program between said different applications by determining an estimate of relative duration of use of said executable program by individual applications of said different applications" in Fleming, Fleming does not anticipate the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 3 under 35 U.S.C. 102(b) be withdrawn.

### CLAIM 8

Dependent claim 8 is considered to be patentable based on its dependence on claim 1. Therefore, the arguments presented above with respect to claim 1 also apply to claim 8. Claim 8 is also considered to be patentable because Fleming neither discloses nor suggests that the “second and third records include data elements and said data elements of said second and third records are dynamically created during a session of operation” as recited in claim 8 of the present invention.

Fleming contains no 112 U.S.C. complaint enabling disclosure of **dynamically** created data elements of records as in the present claimed invention. Col. 2, lines 64-67 of Fleming, cited by the Office Action on page 4, merely describes “[t]he executing monitoring programs [that] record usage of resources by the selected users, and periodically transfer the recorded information to a central analyzing facility” (Col. 2, lines 64-67). Furthermore, Col. 3, lines 58-60 merely describes a Resource Usage Rater that monitors “sample users’ resource usage activities by loading a copy of a monitoring program onto the computer system used by the sample users, so that the loaded copies can execute when the user is using computer system resources” (Col. 3, lines 59-63). Therefore in Fleming, sample usage of computer resources is recorded and may be transferred into a central analyzing facility. However, the recording in Fleming is not equivalent to the “dynamically created” data elements of the second and third records during a session of operation, as in the present claimed invention. Consequently, it is respectfully requested that the rejection of claim 8 under 35 U.S.C. 102(b) be withdrawn.

### CLAIM 21

Independent claim 21 provides a system for monitoring individual application utilization of a plurality of concurrently operating applications shared by multiple users associated with one or more entities. A record processor is included for maintaining a first record of different users associated with an entity for maintaining a second record of different applications invoked by at least one of the different users; and for maintaining a third record of use of an executable program employed by the different applications invoked by the at least one of the different users. The record of use supports allocation of proportion of usage of the executable program by individual applications of the different applications. A data compiler employs the first, second and third records for intermittently compiling data identifying operation usage characteristics of individual applications of the different applications by the at least one of the different users associated with the entity in response to a predetermined processing operation event. These features are not disclosed or suggested by Fleming.

Fleming estimates "the total usage of computer system resources by all users with access to those resources, performed in such a way that desired demographic information is obtained and the usage estimation techniques do not deter computer users from using the resource" (Col. 2, lines 50-55). Thus, Fleming merely describes estimating the total computer system resource usage by all the users that have access to the relevant resources. Fleming may deal with several users that have access to resources; however, Fleming neither discloses nor suggests "[a] system for monitoring individual application utilization" as recited in claim 21 of the present invention. Fleming merely describes "examples of computer users along with their demographic information, and the selection of a sample group of those computer users ... Users 910 is a list of multiple computer users" (Col. 11, lines 30-34). As can be seen in Fig. 9 of Fleming, "Users 910" list sorts according to **users** (for example, "USER 1, USER 2" etc.). However, there is no 112 compliant enabling disclosure in Fleming of "monitoring **individual application** utilization" as recited in claim 21 of the present invention. Fleming merely sorts demographic information according to the different users. This is wholly unlike "monitoring individual application utilization" as recited in the present claimed invention.

As described in the above Fleming sorts demographic information by **users**. However, merely calculating usage by users (i.e., User 1, User 2, etc. in Fig. 9 and Fig. 10) is not the same as "monitoring individual application utilization" as recited in the present claimed invention. Furthermore, Fleming describes that the "Program 1040 is an executable software program entitled 'Dune Buggy Racer,' and usage information 1050 and user list 1060 correspond to program 1040. These indicate that program 1040 was accessed by user 3 who executed the program on 8/17 from 9:30-10:45 AM" (Col. 12, lines 51-55). Thus, Fleming describes listing usage information for users that play a software program called "Dune Buggy Racer." This is wholly unlike the present claimed invention in which "a third record of use of an executable program employed by" the different applications is maintained, where the "record of use ... [supports] allocation of proportion of usage of said executable program by individual applications of said different applications." Furthermore, Fleming, in Fig. 9 and 10 may display "Usage Information" or "Total Resource Usage by All Users with Access" for a program or a document; however, the usage is a measurement of time (more specifically, the time is measured in minutes). This measurement of usage (or elsewhere) in Fleming does not disclose or suggest that the record of use supports allocation of **proportion** of usage of the executable program by individual applications of the different applications, as in the present claimed invention. Fleming is contrary to the present claimed invention which specifically recites that the "Application Program List 413 includes a program weight factor for each program being tracked. The use of weight factors supports allocation of proportionate usage of the different programs among the different applications

of the system being monitored (Specification, page 10, line 33 – page 11, line ).... Fleming may track the number of actual and extrapolated minutes a user spends viewing a program or a document (and sort by user), however, Fleming provides no suggestion or disclosure of “supporting allocation of proportion of usage of said executable program...” as recited in the present claimed invention. Therefore, Fleming contains no U.S.C. 112 compliant enabling disclosure of “monitoring individual application utilization” and the “record of use supporting allocation of proportion of usage of said **executable program** by **individual applications**” of **multiple** “different applications” as recited in claim 21 of the present invention.

Furthermore, “[o]ne advantage of the present invention is the ability to track and associate a given program with a given computer application being invoked in a computer system. An application may be, for example, executable software code in hardwired logic or resident in volatile storage including one or more programs or procedures ... For example, a user may start a patient management application by invoking a patient inquiry screen ... Once a patient management application ... is invoked, various programs associated with the particular application may be called to implement the user request 303” (Specification, page 5, lines 12-22). Additionally, “once a user invokes an application 303, various programs 306-310 associated with the invoked application 303 may be called by the application 303, as needed. As these programs 306-310 are invoked, their use and association to a particular application are tracked by APEX, as shown in Fig. 3” (Specification, page 5, lines 29-32). To the contrary, Fleming describes “a method and system for estimating total usage of computer system resources by users with access to those resources, with estimation performed in such a way that desired demographic information about the users is available .... In particular, a Resource Usage Rater (RUR) system first identifies a computer system resource of interest, such as a computer document accessible via the World Wide Web (WWW), and receives demographic information on various computer users with access to the resource. The RUR system uses the demographic information to select a group of computer users to be a representative sample of all computer users with access to the computer resource. The RUR system then initiates monitoring of the sample users’ resource usage activities by loading a copy of a monitoring program onto the computer systems used by the sample users ... The executing monitoring programs record usage of resources by the sample users” (Col. 3, lines 44-64). Thus, Fleming samples users to gather information on a demographic group to represent all computer users with access to a particular computer resource. However, Fleming is wholly unlike the present claimed invention which recites “monitoring individual application utilization.” Fleming merely deals with a group of sampled users and is not at all concerned with monitoring individual application utilization,

as in the present claimed invention. Consequently, withdrawal of the rejection of claim 21 under 35 U.S.C. 102(b) is respectfully requested.

In view of the above remarks it is respectfully submitted that Fleming provides no 35 U.S.C. 112 compliant enabling disclosure showing the above discussed features. It is thus further respectfully submitted that this rejection is satisfied and should be withdrawn.

**Rejection of Claims 4-6, 10-18 and 22 under 35 U.S.C. 103(a) over Fleming (U.S. Patent 6,230,204) in view of AIX Version 3.2 ("AIX Version 3.2 – System Management Guide: Operating System and Devices, Chapter 14 System Accounting", published October 1<sup>st</sup>, 1993)**

Reversal of the rejection of claims 4-6, 10-18 and 22 under 35 U.S.C. 103(a) as being unpatentable over Fleming (U.S. Patent 6,230,204) in view of AIX Version 3.2 ("AIX Version 3.2 – System Management Guide: Operating System and Devices, Chapter 14 System Accounting", published October 1st, 1993) is respectfully requested because the rejection makes crucial errors in interpreting the cited reference. The rejection erroneously states that claims 4-6, 10-18 and 22 are made unpatentable by Fleming in view of AIX Version 3.2.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596, 1598 (Fed.Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (CCPA 1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion, or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed.Cir. 1988), *cert. denied*, 488 U.S. 825 (1988); *Ashland Oil Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 28, 293, 227 USPQ 657, 664 (Fed.Cir. 1985), *cert. denied*, 475 U.S. 1017 (1986); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed.Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed.Cir. 1992).

**CLAIMS 4 and 5**

Claims 4 and 5 are dependent on independent claim 1 and are patentable for the same reasons as independent 1. Additionally, Fleming, when taken alone or in combination with

AIX, neither discloses nor suggests that the “step of intermittently compiling data comprises intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application” as recited in claim 4 of the present invention.

AIX describes an accounting system utility allows you to collect and report on individual and group use of various system resources.

As recognized in the previous Rejection, AIX does not teach “maintaining” a record “supporting allocation of proportion of usage” of an “executable program by individual applications” of “different applications” invoked by “at least one of said different users.” However, Applicant respectfully submits that AIX with Fleming does not disclose or suggest “maintaining a third record of use of an executable program ... said record of use supporting allocation of proportion of usage of said executable program by individual applications of said different applications” and the “step of intermittently compiling data comprises intermittently compiling data identifying at least one of, (a) process time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application” as recited in the present claimed invention.

The AIX system allows process accounting data to be acquired via two commands, acctcms and acctcom, respectively. The acctcms command “summarizes resource use by command name. This provides information on how many times each command was run, how much process time and memory was used, and how intensely the resources were used (also known as the hog factor). The acctcms command produces long-term statistics on system utilization, providing information on total system usage and the frequency with which commands are used” (AIX, “Process Accounting Reports”, page 14-3, line 7 to page 14-4, line 4). These factors, specifically “how many times each command was run, how much process time and memory was used, and how intensely the resources were used” provide NO information about “compiling data identifying ... process time used by an individual application ... a number of file accesses made by an individual application ... a number of storage access request made by an individual application” or usage of an “**executable program by individual applications**” of **multiple** “different applications” as recited in the present claimed invention.

Additionally, the Office Action cites page 14-2, “Disk-Usage Accounting”, lines 1-11 of AIX as being equivalent to claim 4 of the present invention. Applicant respectfully

disagrees. The cited passage merely describes certain commands. The commands include “cron daemon” which writes disk-usage records for each user to a file; the “diskusg” or “acctdusg” commands which may be used to collect the data for “cron daemon”; the “acctdisk” command to write a total accounting record; and the “acctmerg” command to prepare the daily accounting report. However, none of these commands or anywhere else in AIX is there mention or disclosure of the individual applications, as in the present claimed invention. Therefore, AIX does not disclose or suggest “intermittently compiling data identifying at least one of ... process time used by an individual application ... a number of file accesses made by an individual application and ... a number of storage access requests made by an individual application” as recited in claim 4 of the present invention.

There is no reason or motivation to combine the system of Fleming with AIX. Fleming merely **estimates** the total usage of computer system resources by all users by sampling. Fleming is also concerned with using demographic information to select some of the computer users to be a representative sample of all computer users with access to the resource. AIX is an **accounting** system utility that “can be used to bill users for the system resources they utilize, and ... monitor[s] selected aspects of the system’s operation” (AIX, “Accounting Overview”, page 14-1, lines 1-2). Whereas Fleming deals with **estimation** of computer usage, AIX must collect the **actual** usage used for billing. Furthermore, the objective of Fleming is to estimate computer resource usage related to certain demographics. AIX, on the other hand, is not concerned with demographics. Therefore, there is no reason or motivation to combine the systems of Fleming and AIX, as suggested by the Office Action.

However, even if the systems of Fleming and AIX were combined, the combination would yield a computer resource tracking system that would show the actual and the estimate CPU usage for each process (or session) and CPU usage for individual users (or groups of users). The combined system, similar to the individual systems of Fleming and AIX, would neither disclose nor suggest “monitoring individual application utilization” or “compiling data identifying at least one of ... process time used by an individual application ... a number of file accesses made by an individual application and ... a number of storage access requests made by an individual application” as recited in the present claimed invention. Although the combined system may track individual computer usage, there is no mention or suggestion of “monitoring individual **application utilization**” as in the present claimed invention. The combined system, similar to the individual system would not be able to deal with individual applications, as in the present claimed invention.

Additionally, similar to the individual system of Fleming, the combined system of Fleming and AIX would neither disclose nor suggest “supporting allocation of **proportion** of



usage of said executable program by individual applications of said different applications” as recited in the present claimed invention. The combined system, similar to Fleming, in Fig. 9 and 10, may display “Usage Information” or “Total Resource Usage by All Users with Access” for a program or a document; however, the usage is a measurement of time (more specifically, the time is measured in minutes). This measurement of usage (or elsewhere) in Fleming does not disclose or suggest that the record of use supports allocation of **proportion** of usage of the executable program by individual applications of the different applications, as in the present claimed invention. Fleming is contrary to the present claimed invention which specifically recites that the “Application Program List 413 includes a program weight factor for each program being tracked. The use of weight factors supports allocation of proportionate usage of the different programs among the different applications of the system being monitored (Specification, page 10, line 33 – page 11, line ).\_ Fleming may track the number of actual and extrapolated minutes a user spends viewing a program or a document (and sort by user), however, Fleming provides no suggestion or disclosure of “supporting allocation of proportion of usage of said executable program ...” as recited in the present claimed invention. Therefore, Fleming contains no U.S.C. 112 compliant enabling disclosure “supporting allocation of proportion of usage of said executable program by individual applications of said different applications” as recited in claim 1 of the present invention. As claim 4 is dependent on the above feature, it is also patentable for the same reasons discussed above regarding claim 1. Consequently, withdrawal of the rejection of claim 4 under 35 U.S.C. 103(a) is respectfully requested. Additionally, as claim 5 depends on the above features in claim 4, withdrawal of the Rejection of claims 4 and 5 under 35 USC 103(a) is respectfully requested.

#### CLAIM 6

Claim 6 provides that that the predetermined processing operation event includes at least one of, a data access request, a storage access request, termination of use of an individual application, termination of user operation session and a periodically generated command. Fleming and AIX, when taken alone or in combination, do not disclose or suggest these features.

The Office Action cites page 14-1, “Collecting and Reporting System Data” and page 14-2, “Disk-Usage Accounting” as being equivalent to the present claimed invention. Applicant respectfully disagrees. Page 14-1, “Collection and Reporting System Data”, lines 10-13, relied on in the Office Action, merely describes converting records into total accounting (tact) records arranged by user, and merged into a daily report. Periodically, the daily reports are combined to produce totals for the defined fiscal period” (page 14-1, “Collecting and Reporting System Data”, lines 10-12). Additionally, the second cited

passage describes the “dodisk” command which allows charging “a user for the links to files found in the user’s login directory and evenly divides the charge for each file between the links. This spreads the cost of using a file over all who use it and removes the charges from the users when they relinquish access to a file” (page 14-2, “Disk-Usage Accounting”, lines 9-12). Nowhere in the above cited passages or anywhere in AIX (with Fleming) is there mention or suggestion of the “**predetermined** processing operational event comprising at least one of ... a data access request ... a storage access request ... termination of use of an individual application ... termination of a user operation session ... a periodically generated command” as recited in the present claimed invention. Although AIX may mention commands that a user may implement to arrange reports, these are not equivalent to the present claimed invention. Consequently, withdrawal of the rejection of claim 6 under 35 U.S.C. 103(a) is respectfully requested.

#### CLAIM 10

Claim 10 is dependent on independent claim 1 and is allowable for the same reasons as claim 1. Specifically, AIX and Fleming, when taken alone or in combination, provide no U.S.C. 112 compliant enabling disclosure of “monitoring individual application utilization” and “maintaining a third record of use of an executable program ... said record of use supporting allocation of proportion of usage of said executable program by individual applications of said different applications” as recited in the present claimed invention.

AIX merely describes an accounting system utility used to collect and report on individual and group use of various system resources. AIX, similar to Fleming neither discloses nor suggests the monitoring of **individual** application utilization. This is because AIX (and Fleming) only describe monitoring or estimating usage of individuals or groups. However, AIX and Fleming, when taken alone or in combination, are not equivalent to the present claimed invention. Consequently, withdrawal of the rejection of claim 10 under 35 U.S.C. 103(a) is respectfully requested.

#### CLAIMS 11, 12 and 14-16

Independent claim 11 provides in a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities, a method performed by a data processor for monitoring individual application utilization. During a session of user operation, a first record of different users associated with an entity is maintained; a second record of different applications invoked by at least one of the different users is maintained; and a third record associating a processing device with the at least one of the different users is maintained. Also during a session of user operation, the first, second and third records are employed for intermittently compiling data identifying at least one of, a

processor time used by an individual application, a number of file accesses made by an individual application and a number of storage access requests made by an individual application of the different applications by the at least one of the different users associated with the entity in response to a predetermined processing operation event. Fleming and AIX, when taken alone or in combination, do not disclose or suggest the features of the present claimed invention.

The Office Action on page 7 recognizes that Fleming does not specifically teach “maintaining a third record associating a processing device with said at least one of said different users; and employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event” as recited in claim 11 of the present invention. However, Applicant respectfully submits that Fleming with AIX, when taken alone or in combination, also do not disclose or suggest these features.

As described in the above, AIX merely describes an accounting system utility used to collect and report on individual and group use of various system resources. The AIX system allows process accounting data to be acquired via two commands, acctcms and acctcom, respectively. The acctcms command “summarizes resource use by command name. This provides information on how many times each command was run, how much process time and memory was used, and how intensely the resources were used (also known as the hog factor). The acctcms command produces long-term statistics on system utilization, providing information on total system usage and the frequency with which commands are used” (AIX, “Process Accounting Reports”, page 14-3, line 7 to page 14-4, line 4). These factors, specifically show “how many times each command was run, how much process time and memory was used, and how intensely the resources were used” and provide NO information about “employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event” as recited in claim 11 of the present invention.

The acctcom command “handles the same data as the acctcms command, but provides detailed information about each process. You can display all process accounting records or

select records of particular interest. Selection criteria include the load imposed by the process, the time period when the process ended, the name of the command, the user or group that invoked the process, and the port at which the process ran" (AIX, page 14-4, lines 6-10). The cited factors, specifically "the load imposed by the process, the time period when the process ended, the name of the command, the user or group that invoked the process, and the port at which the process ran" do not disclose or suggest "a data processor for monitoring **individual** application utilization" as recited in claim 11 of the present invention.

Additionally, the Office Action cites page 14-2, "Disk-Usage Accounting", lines 10-11 of AIX as being equivalent to claim 11 of the present invention. Applicant respectfully disagrees. The cited passage merely describes that the "dodisk" command, which charges a user according to the links to files the user used. The charge for each file between the links is evenly divided. "This spreads the cost of using a file over all who use it and removes the charges from the users when they relinquish access to a file" (page 14-2, "Disk-Usage Account", lines 10-12). However, nowhere in this passage or anywhere else in AIX is there mention or disclosure of the individual applications, as in the present claimed invention. Therefore, AIX does not disclose or suggest "a data processor for monitoring individual application utilization... employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event" as recited in claim 11 of the present invention.

Furthermore, there is no reason or motivation to combine the system of Fleming with AIX. Fleming merely **estimates** the total usage of computer system resources by all users by sampling. Fleming is also concerned with using demographic information to select some of the computer users to be a representative sample of all computer users with access to the resource. AIX is an **accounting** system utility that "can be used to bill users for the system resources they utilize, and ... monitor[s] selected aspects of the system's operation" (AIX, "Accounting Overview", page 14-1, lines 1-2). Whereas Fleming deals with **estimation** of computer usage, AIX must collect the **actual** usage used for billing. Furthermore, the objective of Fleming is to estimate computer resource usage related to certain demographics. AIX, on the other hand, is not concerned with demographics. Therefore, there is no reason or motivation to combine the systems of Fleming and AIX, as suggested by the Office Action.

However, even if the systems of Fleming and AIX were combined, the combination would yield a computer resource tracking system that would show the actual and the estimate

CPU usage for each process (or session) and CPU usage for individual users (or groups of users). The combined system, similar to the individual systems of Fleming and AIX, would neither disclose nor suggest “monitoring individual application utilization” or “employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event” as recited in claim 11 of the present invention. Although the combined system may track individual computer usage, there is no mention or suggestion of “monitoring individual **application utilization**” as in the present claimed invention. The combined system, similar to the individual system would not be able to deal with individual applications, as in the present claimed invention. Consequently, withdrawal of the rejection of claim 11 under 35 U.S.C. 103(a) is respectfully requested. As claims 12 and 14-16 all depend on the above features in claim 11, withdrawal of the Rejection of claims 12 and 14-16 under 35 USC 103(a) is respectfully requested.

#### CLAIM 13

Claim 13 is dependent on independent claim 11 and is allowable for the same reasons as claim 11. Claim 13 also provides allocating proportion of usage of the executable program by individual applications of the plurality of different applications by determining an estimate of relative duration of use of the executable program by individual applications of the different applications. These features are not disclosed or suggested by Fleming and AIX, when taken alone or in combination.

Fleming (with AIX) merely describes an estimation “of the **total usage of document** 1010 for all users represented by each of the sample users” (Fleming, Col. 13, lines 5-7). However, merely describing the estimation of total usage of a particular document based on sample users does not disclose or suggest the features of the present claimed invention. Fleming and AIX, when taken alone or in combination, do not show or suggest “allocating proportion of usage of said executable program by **individual applications**” as recited in the present claimed invention. This is because Fleming and AIX merely deal with an actual or an estimate of usage for groups or individuals. Nowhere in Fleming and AIX, when taken alone or in combination, is there any U.S.C. 112 compliant enabling disclosure of “allocating proportion of usage of said executable program by individual applications of said plurality of said different applications by determining an estimate of relative duration of use of said executable program by individual applications of said different applications” are recited in

claim 13 of the present invention. Consequently, it is respectfully requested that the rejection of claim 13 under 35 U.S.C. 102(b) be withdrawn.

#### CLAIMS 17 AND 18

Independent claim 17 provides in a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities, a method performed by a data processor for monitoring application utilization. A first record of different users associated with an entity is maintained. A second record of different applications invoked by at least one of the different users is maintained. A third record associating a processing device with the at least one of the different users is maintained. The first, second and third records are employed for intermittently compiling data identifying at least one of, processor time used by an individual application, a number of file accesses made by an individual application and a number of storage access requests made by an individual application of the different applications by particular users associated with the entity in response to a predetermined processing operation event. A record based on the compiled data is generated. Fleming and AIX, when taken alone or in combination, do not disclose or suggest the features of the present claimed invention.

The Office Action on page 7 recognizes that Fleming does not specifically teach “maintaining a third record associating a processing device with said at least one of said different users; and employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event” as recited in claim 11 of the present invention. Similarly, Applicant respectfully submits that Fleming does not disclose or suggest “maintaining a third record associating a processing device with said at least one of said different users; employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by particular users associated with said entity in response to a predetermined processing operation event” as recited in claim 17 of the present invention. However, Applicant respectfully submits that Fleming with AIX, when taken alone or in combination, also do not disclose or suggest these features.

As described in the above, AIX merely describes an accounting system utility used to collect and report on individual and group use of various system resources. The AIX system allows process accounting data to be acquired via two commands, acctcms and acctcom, respectively. The acctcms command “summarizes resource use by command name. This provides information on how many times each command was run, how much process time and memory was used, and how intensely the resources were used (also known as the hog factor). The acctcms command produces long-term statistics on system utilization, providing information on total system usage and the frequency with which commands are used” (AIX, “Process Accounting Reports”, page 14-3, line 7 to page 14-4, line 4). These factors, specifically “how many times each command was run, how much process time and memory was used, and how intensely the resources were used” provide NO information about “employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by particular users associated with said entity in response to a predetermined processing operation event” as recited in claim 17 of the present invention.

The acctcom command “handles the same data as the acctcms command, but provides detailed information about each process. You can display all process accounting records or select records of particular interest. Selection criteria include the load imposed by the process, the time period when the process ended, the name of the command, the user or group that invoked the process, and the port at which the process ran” (AIX, page 14-4, lines 6-10). The cited factors, specifically “the load imposed by the process, the time period when the process ended, the name of the command, the user or group that invoked the process, and the port at which the process ran” do not disclose or suggest “monitoring application utilization” as recited in claim 17 of the present invention.

Additionally, AIX describes that the “dodisk” command, which charges a user according to the links to files the user used. The charge for each file between the links is evenly divided. “This spreads the cost of using a file over all who use it and removes the charges from the users when they relinquish access to a file” (page 14-2, “Disk-Usage Account”, lines 10-12). However, nowhere in this passage or anywhere else in AIX is there mention or disclosure of monitoring individual applications utilization, as in the present claimed invention. Therefore, AIX does not disclose or suggest a data processor for monitoring application utilization ... employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and

(c) a number of storage access requests made by an individual application of said different applications by particular users associated with said entity in response to a predetermined processing operation event” as recited in claim 17 of the present invention.

Furthermore, there is no reason or motivation to combine the system of Fleming with AIX. Fleming merely **estimates** the total usage of computer system resources by all users by sampling. Fleming is also concerned with using demographic information to select some of the computer users to be a representative sample of all computer users with access to the resource. AIX is an **accounting** system utility that “can be used to bill users for the system resources they utilize, and ... monitor[s] selected aspects of the system’s operation” (AIX, “Accounting Overview”, page 14-1, lines 1-2). Whereas Fleming deals with **estimation** of computer usage, AIX must collect the **actual** usage used for billing. Furthermore, the objective of Fleming is to estimate computer resource usage related to certain demographics. AIX, on the other hand, is not concerned with demographics. Therefore, there is no reason or motivation to combine the systems of Fleming and AIX, as suggested by the Office Action.

However, even if the systems of Fleming and AIX were combined, the combination would yield a computer resource tracking system that would show the actual and the estimate CPU usage for each process (or session) and CPU usage for individual users (or groups of users). The combined system, similar to the individual systems of Fleming and AIX, would neither disclose nor suggest “monitoring individual application utilization” or “employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by particular users associated with said entity in response to a predetermined processing operation event” as recited in claim 17 of the present invention. Although the combined system may track individual computer usage, there is no mention or suggestion of “monitoring individual **application utilization**” as in the present claimed invention. The combined system, similar to the individual system would not be able to deal with individual applications, as in the present claimed invention. Consequently, withdrawal of the rejection of claim 17 under 35 U.S.C. 103(a) is respectfully requested. As claim 18 depends on the above features in claim 17, withdrawal of the Rejection of claims 17 and 18 under 35 USC 103(a) is respectfully requested.

#### CLAIM 22

Independent claim 22 provides a system for monitoring individual application utilization of a plurality of concurrently operating applications shared by multiple users associated with one or more entities. A record processor is included for maintaining a first



record of different users associated with an entity; for maintaining a second record of different applications invoked by at least one of the different users; and for maintaining a third record associating a processing device with the at least one of the different users. A data compiler employs the first, second and third records for intermittently compiling data identifying at least one of processor time used by an individual application, a number of file accesses made by an individual application and a number of storage access requests made by an individual application of the different applications by the at least one of the different users associated with the entity in response to a predetermined processing operation event. Fleming and AIX, when taken alone or in combination, do not disclose or suggest these features.

As described in the above, AIX merely describes an accounting system utility used to collect and report on individual and group use of various system resources. The AIX system allows process accounting data to be acquired via two commands, acctcms and acctcom, respectively. The acctcms command “summarizes resource use by command name. This provides information on how many times each command was run, how much process time and memory was used, and how intensely the resources were used (also known as the hog factor). The acctcms command produces long-term statistics on system utilization, providing information on total system usage and the frequency with which commands are used” (AIX, “Process Accounting Reports”, page 14-3, line 7 to page 14-4, line 4). These factors, specifically “how many times each command was run, how much process time and memory was used, and how intensely the resources were used” provide NO information about “a data compiler employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event” as recited in claim 22 of the present invention.

Furthermore, there is no reason or motivation to combine the system of Fleming with AIX. Fleming merely **estimates** the total usage of computer system resources by all users by sampling. Fleming is also concerned with using demographic information to select some of the computer users to be a representative sample of all computer users with access to the resource. AIX is an **accounting** system utility that “can be used to bill users for the system resources they utilize, and ... monitor[s] selected aspects of the system’s operation” (AIX, “Accounting Overview”, page 14-1, lines 1-2). Whereas Fleming deals with **estimation** of computer usage, AIX must collect the **actual** usage used for billing. Furthermore, the objective of Fleming is to estimate computer resource usage related to certain demographics.

AIX, on the other hand, is not concerned with demographics. Therefore, there is no reason or motivation to combine the systems of Fleming and AIX, as suggested by the Office Action.

However, even if the systems of Fleming and AIX were combined, the combination would yield a computer resource tracking system that would show the actual and the estimate CPU usage for each process (or session) and CPU usage for individual users (or groups of users). The combined system, similar to the individual systems of Fleming and AIX, would neither disclose nor suggest “[a] system for monitoring individual application utilization” or “a data compiler employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event” as recited in claim 22 of the present invention. Although the combined system may track individual computer usage, there is no mention or suggestion of “monitoring individual **application utilization**” as in the present claimed invention. The combined system, similar to the individual system would not be able to deal with individual applications, as in the present claimed invention. Consequently, withdrawal of the rejection of claim 22 under 35 U.S.C. 103(a) is respectfully requested.

In view of the above remarks, Applicant respectfully submits that there is no 35 U.S.C. 112 compliant enabling disclosure present in Fleming and AIX, when taken alone or in combination, that makes the present invention unpatentable. It is respectfully submitted that this rejection is satisfied and should be withdrawn.

**Rejection of Claims 19-20 under 35 U.S.C. 103(a) over Fleming (U.S. Patent 6,230,204) in view of AIX Version 3.2 (“AIX Version 3.2 – System Management Guide: Operating System and Devices, Chapter 14 System Accounting”, published October 1<sup>st</sup>, 1993)**

Reversal of the rejection of claims 19 and 20 under 35 U.S.C. 103(a) as being unpatentable over Fleming (U.S. Patent 6,230,204) in view of AIX Version 3.2 (“AIX Version 3.2 – System Management Guide: Operating System and Devices, Chapter 14 System Accounting”, published October 1st, 1993) is respectfully requested because the rejection makes crucial errors in interpreting the cited reference. The rejection erroneously states that claims 19 and 20 are made unpatentable by Fleming in view of AIX Version 3.2.

**CLAIM 19**

Independent claim 19 provides in a user interface system for monitoring individual application utilization of a plurality of currently operating applications shared by multiple users associated with one or more entities, a method performed by a data processor. Display of a first image including a user selectable item is initiated for selecting display of image data representing processor utilization collated by individual application for a plurality of concurrently operating applications. In response to user selection of the item, display is initiated of a second image including compiled data identifying at least one of processor time used by an individual application, a number of file accesses made by an individual application and a number of storage access requests made by an individual application of the plurality of concurrently operating applications. Fleming with AIX, when taken alone or in combination, do not disclose or suggest these features.

The Process Accounting and Keyboard Command sections on pages 14-2 and 14-6 of AIX respectively, relied on in the Rejection (page 10) nowhere discusses or mentions compiling data on “processor utilization collated by **individual** application for a **plurality** of **concurrently** operating applications.” AIX also does not mention or contemplate initiating “display of a **second image**” including specific compiled data identifying at least one of, (a) processor time used by an **individual application**, (b) a number of file accesses made by an **individual application**, and (c) a number of storage access requests made by an **individual application** of said plurality of concurrently operating applications.” The various keyboard commands listed on page 14-6 of AIX, cited by the Office Action, perform various tasks including displaying accounting and connect-time summaries, charging the user a predetermined fee for units of work performed, converting file formats, displaying a session record, displaying total accounting files, displaying a graph of system activity, etc. None of these commands or anywhere else in AIX is there any mention of “monitoring individual application utilization” as recited in claim 19 of the present invention. AIX (with Fleming) also fails to suggest providing a “second image” including the recited data in response to user selection of a “user selectable item” for selecting display of image data representing processor utilization collated by individual application for a plurality of concurrently operating applications” in a first image. This image menu navigation architecture enables a user to optionally examine “processor utilization” characteristics “collated by **individual** application” of a “**plurality** of **concurrently** operating applications.” This navigation capability is nowhere suggested or contemplated in AIX and its advantages are also not recognized in AIX.

Furthermore, the Office Action on page 11 recognizes that “AIX did not specifically teach initiating display of a first image including a user selectable item, initiating display of a second image.” However, there is no reason or motivation to include (in the system of AIX)

an initiation of a display of an image that includes “a user selectable item for selecting display of image data representing processor utilization collated by individual application for a plurality of concurrently operating applications” as recited in claim 19 of the present invention. AIX provides no other motivation or reason for incorporating the claimed features. Consequently, withdrawal of the rejection of claim 19 under 35 U.S.C. 103(a) is respectfully requested.

#### CLAIM 20

Dependent claim 20 is considered to be patentable based on its dependence on claim 19. Claim 20 is also considered to be patentable because AIX does not show or suggest “deriving said compiled data by intermittently generating data identifying operation usage characteristics of individual applications of said plurality of concurrently operating applications based on accumulated operation data records, said operation usage characteristics being collated for individual users associated with an entity” as recited in claim 20 of the present invention.

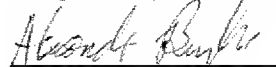
Contrary to the Rejection statement on page 11, these features are not shown in the “Disk Usage Accounting” section in AIX on pages 14-2 and 14-4 and the “Daily Reports” section on page 14-4. Page 14-2, “Disk-Usage Accounting” of AIX merely describes certain commands. The commands include “cron deamon” which writes disk-usage records for each user to a file; the “diskusg” or “acctdusg” commands which may be used to collect the data for “cron deamon”; the “acctdisk” command to write a total accounting record; and the “acctmerg” command to prepare the daily accounting report. Page 14-4, “Disk-Usage Accounting Report” describes that the disk-usage records are collected in a particular file and are merged into the daily account reports by the “acctmerg” command. Page 14-4, “Daily Reports” merely describes the “acctmerg” command that that merges raw accounting data on connect-time, processes, disk usage, printer usage and fees to be charged into the daily reports. The “runacct” command calls the “acctmerg” command. As a result, an intermediate report is produced when one of the input files is full and a cumulative total report in “tact” format is produced. The “acctmerg” command can convert the records between ASCII and binary formats and merge records from different sources into a single record for each user. However, these sections make no mention or suggestion of deriving “compiled data by intermittently generating data identifying operation usage characteristics of **individual applications** of said **plurality** of concurrently operating applications based on accumulated operation data records, said operation usage characteristics being collated for individual users associated with an entity.” The section relied on fails to mention or suggest deriving data concerning “operation usage” on an **application** specific basis.

In view of the above remarks, Applicant respectfully submits that there is no 35 U.S.C. 112 compliant enabling disclosure present in Fleming and AIX, when taken alone or in combination, that makes the present invention unpatentable. It is respectfully submitted that this rejection is satisfied and should be withdrawn.

### VIII CONCLUSION

Fleming, when taken alone or in combination with AIX, neither discloses nor suggests the “monitoring individual application utilization” or “maintaining a third record of use of an executable program employed by said different applications invoked by said at least one of said different users, said record of use supporting allocation of proportion of usage of said executable program by individual applications of said different applications” as recited in the present invention. Specifically, Fleming with AIX neither disclose nor suggest “monitoring individual application utilization” as in the present claimed invention, because the systems of Fleming and AIX, when taken alone or in combination, merely deal with monitoring usage of individuals or groups. However, there is no mention or suggestion of “monitoring individual application utilization” as in the present claimed invention. Accordingly it is respectfully submitted that the rejection of Claims 1– 22 should be reversed.

Respectfully submitted,



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## **APPENDIX 1 - APPEALED CLAIMS**

1. (Previously Presented) In a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities, a method performed by a data processor for monitoring individual application utilization, said method comprising the steps of:

maintaining a first record of different users associated with an entity;

maintaining a second record of different applications invoked by at least one of said different users;

maintaining a third record of use of an executable program employed by said different applications invoked by said at least one of said different users, said record of use supporting allocation of proportion of usage of said executable program by individual applications of said different applications; and

employing said first, second and third records for intermittently compiling data identifying operation usage characteristics of individual applications of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event.

2. (Previously Presented) A method according to claim 1, including the step of allocating proportion of usage of said executable program between said different applications by determining an estimate of relative duration of use of said executable program by individual applications of said different applications.

3. (Previously Presented) A method according to claim 2, including the step of determining and recording weighting factors associated with individual applications of said different applications, said weighting factors representing an estimate of relative duration of use of said executable program by individual applications of said different applications.

4. (Previously Presented) A method according to claim 1, wherein said step of intermittently compiling data comprises

intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application.

5. (Previously Presented) A method according to claim 4, wherein said step of intermittently compiling data comprises

intermittently compiling data supporting identifying relative operation usage characteristics by an individual application as a proportion of said different applications.

6. (Previously Presented) A method according to claim 1, wherein said predetermined processing operational event comprises at least one of, (a) a data access request, (b) a storage access request, (c) termination of use of an individual application, (d) termination of a user operation session and (e) a periodically generated command.

7. (Previously Presented) A method according to claim 1, including the step of maintaining a fourth record associating a processing device with at least one of, (a) a user, (b) an entity and (c) an individual application.

8. (Previously Presented) A method according to claim 1, wherein said second and third records include data elements and said data elements of said second and third records are dynamically created during a session of operation.

9. (Original) A method according to claim 1, wherein said executable program employed by said different applications comprises a program providing a function shared by said different applications.

10. (Original) A method according to claim 1, wherein said entity comprises at least one of, (a) a customer, (b) a company, (c) an organization and (d) an identifiable group of users.

11. (Previously Presented) In a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities, a method performed by a data processor for monitoring individual application utilization, said method comprising the steps of:

during a session of user operation,  
maintaining a first record of different users associated with an entity;  
maintaining a second record of different applications invoked by at least one of said different users;  
maintaining a third record associating a processing device with said at least one of said different users; and

employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event.

12. (Previously Presented) A method according to claim 11, including the step of

maintaining a fourth record for use in allocating proportion of usage by an individual application of an executable program shared by a plurality of said different applications.

13. (Previously Presented) A method according to claim 12, including the step of

allocating proportion of usage of said executable program by individual applications of said plurality of said different applications by determining an estimate of relative duration of use of said executable program by individual applications of said different applications.

14. (Original) A method according to claim 11, wherein said step of maintaining a third record includes

maintaining a third record associating said processing device with said entity.

15. (Original) A method according to claim 11, wherein

said first, second and third records are maintained in at least one of, (a) a single file and (b) a plurality of files.

16. (Previously Presented) A method according to claim 11, wherein said step of intermittently compiling data comprises

intermittently compiling data identifying at least one of, (a) size of storage employed by an individual application, (b) a number of input/output requests made by an individual application and (c) a number of file deletion requests made by an individual application.

17. (Previously Presented) In a system supporting shared access to a plurality of concurrently operating applications by multiple users associated with one or more entities,



a method performed by a data processor for monitoring application utilization, said method comprising the steps of:

- maintaining a first record of different users associated with an entity;
- maintaining a second record of different applications invoked by at least one of said different users;
- maintaining a third record associating a processing device with said at least one of said different users;
- employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by particular users associated with said entity in response to a predetermined processing operation event; and
- generating a record based on said compiled data.

18. (Previously Presented) A method according to claim 17, wherein said step of generating a record comprises

- generating a record for use in adaptively adjusting system characteristics to improve system performance.

19. (Previously Presented) In a user interface system for monitoring individual application utilization of a plurality of concurrently operating applications shared by multiple users associated with one or more entities, a method performed by a data processor comprising the steps of:

- initiating display of a first image including a user selectable item for selecting display of image data representing processor utilization collated by individual application for a plurality of concurrently operating applications; and
- in response to user selection of said item,
  - initiating display of a second image including compiled data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said plurality of concurrently operating applications.

20. (Original) A method according to claim 19, including the step of

- deriving said compiled data by intermittently generating data identifying operation usage characteristics of individual applications of said plurality of concurrently operating applications based on accumulated operation data records, said operation usage characteristics being collated for individual users associated with an entity.

21. (Previously Presented) A system for monitoring individual application utilization of a plurality of concurrently operating applications shared by multiple users associated with one or more entities, comprising:

- a record processor for,
  - maintaining a first record of different users associated with an entity,
  - maintaining a second record of different applications invoked by at least one of said different users, and
  - maintaining a third record of use of an executable program employed by said different applications invoked by said at least one of said different users, said record of use supporting allocation of proportion of usage of said executable program by individual applications of said different applications; and
- a data compiler employing said first, second and third records for intermittently compiling data identifying operation usage characteristics of individual applications of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event.

22. (Previously Presented) A system for monitoring individual application utilization of a plurality of concurrently operating applications shared by multiple users associated with one or more entities, comprising:

- a record processor for,
  - maintaining a first record of different users associated with an entity,
  - maintaining a second record of different applications invoked by at least one of said different users, and
  - maintaining a third record associating a processing device with said at least one of said different users; and
- a data compiler employing said first, second and third records for intermittently compiling data identifying at least one of, (a) processor time used by an individual application, (b) a number of file accesses made by an individual application, and (c) a number of storage access requests made by an individual application of said different applications by said at least one of said different users associated with said entity in response to a predetermined processing operation event.

**APPENDIX II - EVIDENCE**

Applicant does not rely on any additional evidence other than the arguments submitted hereinabove.

**APPENDIX III - RELATED PROCEEDINGS**

Applicant respectfully submits that there are no proceedings related to this appeal in which any decisions were rendered.

**APPENDIX IV - TABLE OF CASES**

1. *In re Howard*, 394 F. 2d 869, 157 USPQ 615, 616 (CCPA 1968)
2. 29 AM. Jur 2D Evidence S. 33 (1994)
3. *In re Ahlert*, 424 F. 2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970)
4. *In re Eynde*, 480 F. 2d 1364, 1370; 178 USPQ 470, 474 (CCPA 1973)
5. *In re Fine*, 5 USPQ 2d 1600, (Fed Cir. 1988)
6. ACS Hospital Systems Inc v. Montefiore Hospital, 221 USPQ 929,933  
(Fed. Cir. 1984)
7. *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (CCPA 1966)
8. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438  
(Fed.Cir. 1988), *cert. denied*, 488 U.S. 825 (1988)
9. *Ashland Oil Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 28, 293, 227 USPQ  
657, 664 (Fed.Cir. 1985), *cert. denied*, 475 U.S. 1017 (1986)
10. *In re Oetiker*, 977 F2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)

**APPENDIX V - LIST OF REFERENCES**

<u>U.S. Pat. No./Pub.</u>	<u>Issued Date</u>	<u>102(e) Date</u>	<u>Inventors</u>
<u>Name</u>			
6,230,204	May 8, 2001		Fleming
AIX Version 3.2 – System Management Guide: Operating System and Devices, Chapter 14 System Accounting	October 1, 1993		AIX Version 3.2

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